

### **Features**

- Auto-reverse function allows you to record or playback both aides of a casastte continuously without turning the casastte over.
- A large display window allows you to read indicators easily
- Cue marker function to mark a desired portion during recording.
- VOR function allows you to record only when
- sound is picked up.

   Adjustable tape speed in playback mode.
- Squipped with a microphone sensitivity switch to adjust the recording level depending on the microphone you are using and the recording condition.

  Safety HOLD switch to prevent the function butlons (REC, PLAY, PROUE, PAUSE, REWIREVIEW, STOP, DRI) from being activated by mistake.



Cassette-corder



### Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

### **Owner's Record**

The model number is located on the bottom and the serial number is located in the battery compartment. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. TCM-77V

Serial No. \_\_

### WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

### INFORMATION

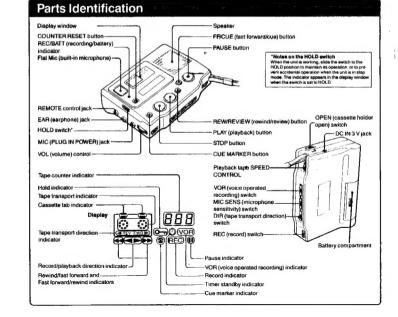
This equipment generates and uses radio frequency energy and it not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no quarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on. The user is encouraged to try to correct the interference by one or more of the following measures:

Recrient the receiving antenna

Relocate the equipment with respect to the receiver Move the equipment away from the receiver Plug the equipment into a different outlet so that

equipment and receiver are on different branch circuits. If necessary, the user should consult the dealer or an experienced radiofelevision technician for additional suggesttions. The user may into the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing

Office, Washington, DC 20402, Stock No. 004-000-00345-4.



SONY.

### LIMITED WARRANTY

CONY CORPORATION OF AMERICA ("SONY") warrants this product against definite in material in warking an indicate an indicate in material in warking and indicate an indicate in material in warking and indicate an indicate a

or went-maning, as follows:

1. For a period 90 days from the data of purchasa, SON's will gav the labor changes of year SON's authorized service leader on repair the infections product. After this 90 day period, you must safe for all lights changes.

2. In addition, SON's will accept, at in change, nine or record inspections for celerities period or a period of 1 year from the inogrand data of purchase.

Labor and Parts St object wasperty agrice during the initial SO day period, you must take the product, or deliver the norther remains to a SONY embersard service facility.

Factor Charge Courseg the remainder of the oversionly period, any defective pain will be registed of it is taken, or defended proposit, to a SORY service context Labor for removal and installation is available from your SORY applications of sortin facility or SORY service context at your stopping.

This warranty does not calve coemitic demags, and demags due to acts of God, accident missies, abuse or negligence is the product including the progress. This warranty is valid only in this United States of America.

Proof of purchase in the form of a tolf of sale or recorded invoice which is evidence that the rint is under the several residence and the several r This warranty is valid only if the serial number appears on the product.

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## Precautions

- Operate the unit only on 120 V AC or 3 V DC.

For AC operation, use the supplied AC power adaptor; do not use any

For battery operation, use two size AA (R6) batteries.

For car battery operation, use the car battery cord recommended for this unit. Do not use any other car battery cord.

 Remove batteries when not in use to avoid damage from battery. leakage.

### Handling the unit

· Avoid exposure to temperature extremes, direct sunlight, dust, or mechanical shock

. Should anything fall into the unit, immediately unplug the unit (or remove batteries) and have it checked by qualified personnel before

### Note on cassette longer than 90 minutes

Use of cassettes longer than 90 minutes in not recommended except for long continuous recording or playback.

If you have any questions or problems concerning your unit, please consult your nearest Sony dealer.

# **Specifications**

Recording system: 2-track 1-channel monaural Frequency response: 150-8 000 Hz (For normal tape TYPE I) Power output (DC): 250 mW (at 10% harmonic distortion) Input: Microphone input jack (minijack) sensitivity 0.2 mV for 3 kQ or

lower impedance microphone Output: Earphone jack (minijack) for 8-300 ohm earphons Power requirements: 3 V DC, two size AA (R6) batteries DC IN 3 V jack accepts:

Sony AC-77 AC power adaptor 120 V AC, 60 Hz

Sony DCC-70 car battery cord (not supplied) for use on 12 V car battery

Betteries 41 May 20	 Percording April 1999.
Sony batteries SUM-3 (NS)	Approx. 2
Sony alkaline batteries AM3 (N)	Approx. 6

For maximum performance, we recommend the use of alkaline batteries. Dimensions: Approx. 111.8 × 35.2 × 79.5 mm (w/h/d) (4% × 17/10 × 31/4 inches) Inc. projecting parts and controls

Weight: Approx. 260 g (9.2 oz) incl. batteries Accessories supplied: Carrying case (1) Earphone microphone (1) AC power adaptor (1)

### Optional accessories

Car battery cord DCC-70 Electret condenser microphone ECM-F01 Foot switch FS-10A Monaurai esrohone ME-81, ME-L82 Connecting cord RK-G64, RK-G69 Synchro-recording unit RM-53

Your dealer may not handle some of the above tisted optional accessories. Please ask the dealer for detailed information about the optional accessories available in your country

Note: Use only the recommended AC power adaptor or car battery cord manufactured by Sony. Polarity of the plugs of other manufacturers may



Design and specifications subject to change without notice.

# Installing a Cassette

Install a cassette when the unit is in the stop mode. Take up any slack of the tape with a pencil before installing a

- 1 Slide OPEN in the direction of the arrow.
- 2 Open the fid while keeping OPEN stid.
- 3 Install a cassette.
- 4 Close the lid.



When you install a casestte The following indicators appear in the display window The FWD indicator always appears when you open the lid.



# **Troubleshooting Guide**

By Charles Comment of the	Printellin (entre traffic republic)
Cassette cannot be Inserted.	<ul> <li>The cassette is facing the wrong direction.</li> </ul>
The lid does not close when a cassette is inserted.	<ul> <li>Take the cassette out of the holder and close the lid once. Reinsert the cassette into the holder.</li> </ul>
Recording does not start.	No cassette in the cassette compartment.     The cassatte inserted has hed the tabs removed. Cover the slot with a small piece of plastic tape.     The HOLD switch is set to HOLD.
Tape does not move.	Incorrect potently betteries. Weak batteries. The PAUSE button is pressed. Battery operation is attempted while the AC power adaptor or car battery cord is connected to the recorder but not to the wall outlet or the cigarette lighter socket. The HOLD switch is set to HOLD.
No sound from the speaker.	<ul> <li>The earphone is plugged in.</li> <li>The VOL control is turned down completely.</li> </ul>
Weak or distorted sound, sound drop-outs, or exces- sive noise. No indication appears.	Week batteries. See "Installing batteries".     Dirty heads. See "Maintenance".
Recording cannot be made or is unsatisfactory.	Improper connection. See     "Recording from various sound sources".

Recording

direction

### Using the Flat Mic (built-in microphone)

Check the tape transport direction.

To record on both sides of a cassette	FWD▶	Reording starts from the upper side of the cassette
To record on one side of a cassette	<b>∢</b> REV	Recording starts from the reverse side

2 Slide REC in the direction of the arrow. (The switch will return to its original position.)

REC/BATT indicator blinks according to



- . The recording sound can be monitored with the supplied earphone.
- . Built-in microphone is deactivated when the MIC jack is used. . If you slide REC in the direction of the arrow during playback,
- the TCM-77 changes to the recording mode.

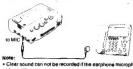
### Using the supplied earphone microphone

Check the tape transport direction

To record on both sides of a cassette	FWD▶	Reording starts from the upper side of the coasette
to record on one side of a cassette	<b>∢</b> REV	Recording starts from the reverse side w to change the tape tra

2 Connect the supplied microphone to MIC (PLUG IN

When connecting a plug-in-power microphone, power is supplied to it from the TCM-77V.



. Clear sound can not be recorded if the earphone microphone plug is dirty.

- Clean the plug with dry cloth once in a while. Recording will not be made if you connect the earphone
- microphone to EAR.

3 Slide REC in the direction of the arrow. (The switch with return to its original position.

REC/BATT indicator blinks while recording.

4 Attach to your ear and hold the telephone receiver over it.





Display during recording

# To stop neconfine

To rewind the teon Prem STOP REWREVIEW







### If you begin recording on the upper (FWD) side

When the tape ends, the tape direction automatically changes to the ♣ REV (reverse) mode, and recording of the reverse side begins.

### At the end of the reverse (REV) side recording

The tape stops (automatic shut off), and the tape direction automatically changes to the FWD . (forward) mode.

### Forward side priority function

If you open the cassette holder in the stop mode, the tape direction will be automatically set to the FWD > (forward) mode and recording or playback will be started from the upper (FWD) side.

- . When recording for a long time, use new batteries.
- . When REC/BATT indicator goes off, the recording may not be done properly. In this case, replace the batteries with new ones.
- . Do not set the earphone volume too high, otherwise a howling effect (acoustic feedback) may occur. When you take off the earphone from your ear, lower the earphone volume, otherwise a howling effect may occur.
- . Do not use the microphone near a lamp cord or fluorescent lamp. It
- may pick up unnecessary noise. . DIR switch does not function white recording.
- Tape SPEED CONTROL does not operate while recording.

### Adjust MIC SENS according to a microphone

Adjust MIC SENS switch depending on the microphone you are using.

	MIC SENS*
Earphone microphone Built-in microphone	MorH
External microphone (not supplied)	L or M

\* L: Only for loud sound M: Normal recording H: For low sound

### Recording only when sound is picked up (VOR system\*\*)

Slide VOR to ON, The VOR indicator appears in the display window and the unit will go into the recording made only when the microphone picks up sound.

"With the VOR (voice operated recording) system, recording starts automatically at a certain sound level, and stops when sound is no longer detected. This is useful to avoid an empty recording.

The VOR indicator blinks when sound is not detected.

### While the VOR system is operating

Recording will not stop when the sensitivity is too high and will not start

The state of the s	MIC SENS***
A loud place	t. or M
A quiet or open place	MorH

\*\*\* L: Start only at high sound level M: Normal H: At low sound level.

### Reviewing the material just recorded During recording, press REW/REVIEW.

When you release, playback will begin automatically from that point.

To correct a previously recorded portion during playback, simply slide REC in the direction of the arrow. The recorder will immediately change to the recording mode.

### Locating the Cue Marker Position

Press CUE MARKER during recording. @blinks for a few seconds. You will hear a buzz at the cue marker position when you press FF/CUE or REWREVIEW while playing back the taps.

It is convenient to mark at an important part of speech, for example, during an interview to quickly find that portion by pressing FF/CUE or REW/REVIEW while playing back the tape.

- Cue will not be marked if you press STOP or PAUSE immediately after having pressed CUE MARKER.
- pressed CUE: MARKETS.
  You may been noise at the cue marker position during playback when you are listening to the recording through a sensitive earphone or ear receive

### Reading tape transport direction indicators

Display during recording or phythack	Park Investor	Floridad
Upper (FWD) side	FFICUE button	REWREVIEW button
Reverse (REV) side	FF/CUE bullon	REWREVIEW bullon

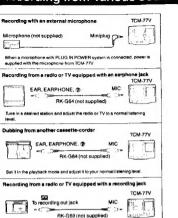
The tape is wound in forward direction by pressing FF/CUE, and in the opposite direction by pressing REW/REVIEW, regardless of which side you are recording on or listening to.

### If you operate REC/PLAY/STOP/FF/REW/DIR/PALISE when a cassette is not in the unit



The cassette indicator blinks to let you know a cassette is not in the unit.

# Recording from Various Sound Sources

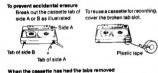


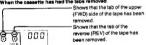
To record, allde REC of the TCM-77V in the direction of the arrow after completing the connections and preparations above.

if your radio. TV, etc., is not Sony product, refer to the instruction menual of that unit.

Tune in a desired station

- When recording with an external microphone, adjust the MIC SENS switch depending on the recording condition
   When recording from other sound sources, normally set the MIC SEMS switch to





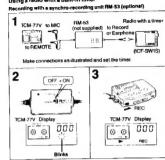
If you slide REC in the direction of the arrow when the tape

has had the t	abs	R	91	n	c	'n	è	¢
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Record on the other side of the tape or cover the slot with plastic tape. Slide REC again in the direction of the arrow to start

### To Record or Playback at the Desired Time

Lising a radio with a built-in timer



For details, refer to the instructions of the RM-53.

# Recording with a radio equipped with a REMOTE jack and a built-in

- 1 Tune in the desired station.
- 2 Set the timer. (See the instructions of the radio.)
- 3 Connect the radio to the TCM-77V.
- 4 Set the TCM-77V to the recording mode.

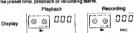


### Recording or playback, using a timer

Use the supplied AC power adaptor AC-77 and any times

- 1 Check that the batteries are in the TCM-77V.
- 2 Set the timer. (See the instructions of the timer.)
- 3 Connect the AC power adaptor AC-77 to the timer.
- 4 Connect the AC power adaptor to the DC IN 3 V jack of the TCM-77V.
- 5 Making sure that the @indicator of the TCM-77V blinks, press PLAY or slide REC in the direction of the arrow.

At the preset time, playback or recording starts



- You cannot record or playback at the desired time, using the AC adaptor when

### To release the preset time 1 Press STOP of the TCM-77V.

2 Disconnect the RM-53 or the AC adaptor from the TCM-77V

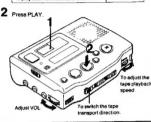
Some of the accessories are not available in some areas. Consult your Sony dealer for details.

# Tape Playback

Insert a cassette and check that the unit is not in the HOLD mode.

Check the tape transport direction. II required, switch the tape transport direction by sliding DIR in the direction of the arrow.

To play back both sides of a cassette	FWD▶
To play back reverse side of a cassette	■ REV



To stop playback	To rewind the tape	To wind the tape rapidly	To stop playback for a moment
втор	Press STOP and then REW/REVIEW	Press STOP and then FF/CUE	PAUSE
$\bigcirc$	(D)	R	JK.
(1/2)			Press PAUSE or PLAY In

To locate a desired position during tape playback Keep pressing FF/CUE or REW/REVIEW during playback. At the desired point found by listening to the high-speed sound, release the pressed button to resume playback.

if you begin playback from the upper (FWD) aids

When the tape ends, the tape direction automatically changes to the ■ REV (reverse) mode, and playback of the reverse side begins.

After the playback of the reverse (REV) side

The tape will stop (automatic shut-off) and the direction will change to the FWD : (forward) mode.

# Maintenance

Prolonged use may contaminate the tape heads and the tape path. Contamination causes insufficient recording or sound drop-outs in playback. To enjoy optimum sound, wipe the heads, capetan and pinch roller with a cotton swab moistaned with alcohol after every 10 hours of use.

Cleaning the case

Do not use alcohol, benzine or thinner to clean the case.

